



National Transportation Safety Board

## The Chairman's Corner

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Friday, January 12, 2007

### **NTSB Determines Pilots' Poor Airmanship Caused 2004 Pinnacle Accident In Jefferson City, Missouri**

The National Transportation Safety Board determined, at a Board meeting this week, that the probable cause of the October 14, 2004 accident of Pinnacle Airlines flight 3701 was the pilots' unprofessional behavior, deviation from standard operating procedures, and poor airmanship, which resulted in an in-flight emergency from which they were unable to recover, in part because of the pilots' inadequate training; the pilots' failure to prepare for an emergency landing in a timely manner, including communicating with air traffic controllers immediately after the emergency about the loss of both engines and the availability of landing sites; and the pilots' failure to achieve and maintain the target airspeed in the double engine failure checklist, which caused the engine cores to stop rotating and resulted in the core lock engine condition.

Contributing to the cause of this accident were the engine core lock condition, which prevented at least one engine from being restarted, and the airplane flight manuals that did not communicate to pilots the importance of maintaining a minimum airspeed to keep the engine cores rotating.

On October 14, 2004, a Bombardier CL-600-2B19 operated by Pinnacle Airlines (doing business as Northwest Airlink) departed Little Rock National Airport en route to Minneapolis-St. Paul, Minnesota for a repositioning flight. The flight plan indicated that the planned cruise altitude was 33,000 feet.

Shortly after takeoff, the captain requested and received clearance to climb to the Canadair Regional Jet's maximum operating altitude of 41,000 feet. After the aircraft reached 41,000 feet, the airplane entered several stalls and shortly thereafter had double engine failure. The crew declared an emergency with the air traffic controller, informing them of an engine failure. However, they failed to inform the air traffic controller that both engines had failed while they made several unsuccessful attempts to restart the engines. The crew also continued to try to restart the engines after the controller asked if they wanted to land.

The flight crew attempted to make an emergency landing at the Jefferson City, Missouri airport but crashed in a residential area about three miles south of the airport. The airplane was destroyed by impact forces and a post crash fire. The two crewmembers were fatally injured. There were no passengers on board and no injuries on the ground.

The Safety Board issued eleven recommendations to the Federal Aviation Administration, dealing with pilots training and high altitude stall recovery techniques. Also, as a part of its investigation into this accident, on November 20, 2006, the Safety Board issued seven safety recommendations dealing with the phenomenon of "core lock."

### **Member Chealander Sworn In**



Steven R. Chealander was sworn in as the 38th Member of the National Transportation Safety Board on January 3, 2007. "Mr. Chealander brings a wealth of both civilian and military aviation experience to the NTSB" said Chairman Mark Rosenker. He received a B.S. degree in Business Administration from the University of Southern California and did graduate studies at the University of Utah. He is married and the father of two daughters.

### **Member Hersman Participates In News Conference for Highway and Auto Safety Advocates**

On January 8, Member Hersman participated in a news conference in Washington, D.C. on driving safety issues currently facing state legislatures. The news conference was arranged by the Advocates for Highway and Auto Safety as a way to urge states to take action during their 2007 legislative sessions to significantly improve driving safety. Member Hersman emphasized the need for states to continue to work on primary seat belt enforcement, impaired driving, teen driving, and child occupant protection. All of these issues are addressed in the Safety Board's Most Wanted List. Danielle Roeber and Stephanie Perkins of SR-30 assisted Member Hersman in preparing for the press conference.



## 89 recommendations closed with an acceptable status in 2006

Here are some examples of the safety improvements contained in the 89 recommendations closed with an acceptable status in 2006:

**Aviation:** Updated aircraft weight and balance and center of gravity requirements to account for increases in average individual and baggage weights; better guidance for pilots to deal with potential aircraft upsets and to correct previously inaccurate training; revised training for employees to identify undeclared and unauthorized hazardous materials; better information to flight crews of turbine-powered aircraft related to minimum airspeed maneuvering for all airplane configurations, phases and flight conditions, including icing and non-icing conditions; improved guidance for installation, repairs and inspections of emergency evacuation systems, including aircraft slides; renewed emphasis on the importance of strict compliance with the sterile cockpit rule; and improved checklists to help ensure that aircraft cargo is weighted, loaded and sequenced correctly.

**Highway:** Better passenger restraint systems in 12- and 15-passenger vans; testing of systems to aid drivers in maintaining control of 15-passenger vans; routine inspection and maintenance of passenger seat anchorages in motorcoaches and upgraded standards to avoid seats detaching from their anchorages during collisions and rollovers; improved traffic control guidelines for U.S. Border Patrol checkpoints located on high-speed arterial roadways; and training for highway and railroad maintenance workers on the design, function and repair of interconnected highway and railroad signal systems.

**Marine:** Stronger standards for mariner drug and alcohol testing, including onboard breath testing and urine collection kits, and quick post-accident testing; better smoke detection and suppression systems on large cruise ships to mitigate smoke and fire spread through ship laundry ducts, and on mooring decks that carry high fire loads; advice to mariners on the hazards of using specific medications when operating a vessel; comprehensive safety management system implemented by the New York City Department of Transportation, including medical fitness oversight and recurring evaluation of maritime navigation technology.

**Rail:** Revised directions for Washington Metro train operators to identify and respond to train rollbacks, and procedures to halt rollbacks. Improved standards for railroad event recorder crashworthiness for new and rebuilt locomotives, modifications to recorders to monitor and record throttle position directly, and implementation of additional recorder testing procedures; better scheduling and record keeping for emergency preparedness training for Amtrak employees; and progress in completing interoperability standards for positive train control systems.

**Pipeline:** New guidance to pipeline operators for testing of new pumping stations and relief valves; new guidelines for pipeline operators on the potential safety risks associated with rotating pipeline controller work shifts; and improved coordination with electric and other utilities during pipeline emergencies; pipeline system operators adopted guidance for the installation of precisely placed permanent markers at sites where gas and hazardous liquid pipelines cross navigable waterways.

## Honoring Dr. Martin Luther King, Jr.

On the third Monday in January, Americans across the country will celebrate the national holiday honoring the work and life of Dr. Martin Luther King Jr. I encourage Safety Board employees to honor Dr. Martin Luther King Jr.'s legacy on January 15, 2007 by coming together to participate in volunteer projects that improve life in their local communities. This year will mark the 21st observance of the King Holiday. The day became a national day of service in 1994, when Congress passed legislation to give the observance even more significance. Instead of a day off from work or school, Congress wanted Americans to honor Dr. King's memory by becoming involved in projects that bring people from different backgrounds together to serve their communities. The Corporation for National and Community Service encourages all Americans to make the King Holiday a day ON, not a day OFF.

Please take a few minutes to view the 6 minute video "Now is the Time": <http://www.mlkday.gov/resources/time/index.asp>

As illustrated by the video link above, participation in the King Day of Service has grown steadily over the past decade, with hundreds of thousands of Americans each year engaging in projects such as painting schools or senior centers, delivering meals, building homes, and reflecting on Dr. King's life and teachings. Although the scope of the event grows every year, many Federal employees still are not aware of the service component of the holiday.

Dr. King's legacy was bringing people together across racial and socio-economic lines through meaningful activity that resulted in a better and more unified country. All of us can build on that legacy by reaching across artificial barriers to serve our neighbors and address community needs. By doing so, the Safety Board can participate in meaningful activities that help strengthen local communities, bridge social and cultural differences, and demonstrate the compassion and commitment of our agency which will make a difference and honor Dr. King's memory. Dr. King's widow, the late Coretta Scott King, said "The greatest birthday gift my husband could receive is if people of all racial and ethnic backgrounds celebrated the holiday by performing individual acts of kindness through service to others."

Service projects come in all forms: some are sponsored by single organizations and others involve partnerships with charities, communities of faith, government agencies and businesses. Some are intensely local – projects at a school or a street – while others are citywide. Some are designed for only one day while others continue throughout the year. With the annual Martin Luther King Day of Service just days away, communities across the country are planning a record number of projects and activities to honor the slain civil rights leader on Monday, January 15. Registering and volunteering for projects is easy because there is a new online system that links people to community service opportunities.

No matter where you are - opportunities to engage in meaningful volunteer projects exist. For more information on Martin Luther King Day activities nationwide please visit <http://www.mlkday.gov>. I encourage NTSB employees to explore the site today to find opportunities on January 15 - just click the "How to Serve" link and the "Click Here" to find an MLK Day opportunity link to connect to volunteer activity near you. It's easy and it will make a difference.

